IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Greg A. Penner Stefan A. Bledig Timothy W. Conner Vergel C. Concibido	§ § § § §	Group Art Unit: 1661 Examiner: Wendy Haas
Serial No.: **10/071,272** Confirmation No.: 9001	§ §	Atty. Dkt. No.: 11898.0021.NPUS01
Filed: **February 8, 2002**	§	
For: IDENTIFICATION OF SEEDS OR PLANTS USING PHENOTYPIC MARKERS	§ § §	

DECLARATION OF GREG A. PENNER, PH.D. UNDER 37 C.F.R. § 1.132

I, Gregory A. Penner, do hereby declare that:

1. I am a citizen of Canada and that my current residential address is 69 Mary Street, Guelph, Ontario.

2. I received a Bachelor's of Agriculture in Science from the University of Manitoba in 1983, with a major in plant breeding and genetics. This was followed by my earning a Master's degree in plant cytogenetics from the same University in 1985. I received a Ph.D. in plant molecular genetics from the University of Saskatchewan, Saskatoon, Saskatchewan, Canada in 1988 from the Department of Crop Science. I worked for two years as a research associate at the National Research Council (Plant Biotechnology Institute) in Saskatoon, followed by a further two years as the holder of the Quaker Oats Research Chair with Agriculture Canada in Ottawa. From 1992 to 1998 I worked as a research scientist with Agriculture Canada in Winnipeg where

I became the section head for cereal biotechnology, supervising approximately 50 researchers. In 1998, I joined Monsanto Inc. initially as global wheat genomics lead, and then from 1999 to 2002 as global soybean yield project leader, and global hybrid canola coordinator. I left Monsanto in 2002 to start my own company, NeoVentures Biotechnology Inc. involved in technology development and consulting. Through this company, I serve as the executive director of the Soy 20/20 Project, an initiative aimed at increasing demand for soybeans in Canada.

3. I am completely familiar with the subject matter and disclosure of United States Patent Application Number 10/071,272 (hereafter called "the '272 application"), of which I believe that I am an inventor.

4. I have reviewed and am familiar with the contents of the paper Takahasi, R. and J. Abe, 1994. *Genetic and Linkage Analysis of Low Temperature-Induced Browning in Soybean Seed Coats*. The Journal of Heredity 85:447-450, which was cited by the Examiner as part of the rejection under 35 U.S.C. § 112, first paragraph made on page 5 of the Office communication dated September 24, 2004.

5. The browning effect noted by Takahashi, et al. does not affect the ability of a person of ordinary skill in the art to practice the subject matter of claims 16-18. The effect Takahasi, et al. refers to is limited to a discoloration surrounding the hilum within yellow or clear hilum soybean varieties, not to the entire seed coat. The black seed coat phenotype described in our '272 patent application involves the complete seed coat, and is much more significant than a discoloration. It would be within the ordinary skill of the art to tell black seed coat soybean seeds from non-black seeds, even those that exhibited extensive browning.

6. The majority of soybeans produced globally are dark or brown hilum, and as Takahashi and Abe note in their paper, dark hilum soybeans do not exhibit this browning pigmentation

response to chilling. Yellow or clear hilum soybean seeds belong to varieties known as food grade soybeans used for traditional Asian soy food production (tofu, soy milk, natto, miso). The visual appearance of these seeds as well as their size and shape are important for end users. This is not the case for the commodity soybeans (dark hilum) intending for the production of soy meal (animal feed) soy flour, soy protein concentrate, soy protein isolate, and oil.

7. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing thereon.

Feb 24th, 2005

Date

Greg A. Penner